PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification 5:

B26D 1/11, 1/06

(11) International Publication Number: WO 93/20984

(43) International Publication Date: 28 October 1993 (28.10.93)

(21) International Application Number: PCT/AU93/00118

(22) International Filing Date: 1 April 1993 (01.04.93)

(30) Priority data:

PL 1876 10 April 1992 (10.04.92) AU 16027/92 4 May 1992 (04.05.92) AU

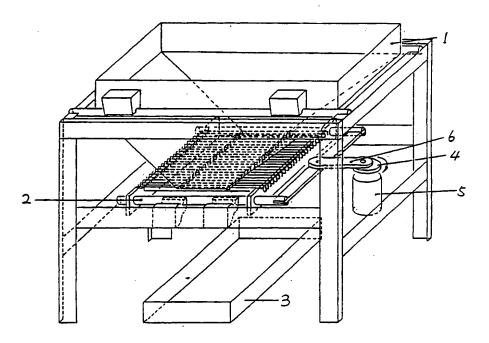
(71)(72) Applicant and Inventor: ZHI, Hui, Lin [CN/AU]; P.O. Box 845, Ulverstone, TAS 7315 (AU).

(81) Designated States: CA, DE, GB, JP, KR, NZ, RU, US.

Published

With international search report.

(54) Title: MEAT SLICING APPARATUS



(57) Abstract

An apparatus for cutting meat into multiple thin slices is disclosed. The meat is placed in a hopper (1) and gravity fed to a rack of saw toothed blades (2). The crank shaft (4) driven by the motor (5) results in the connecting rod (6) imparting a reciprocating motion to the rack (2), cutting the meat into thin slices which fall into the tray (3). It is particularly suitable for use in restaurants and sandwich bars.

FOR THE PURPOSES OF INFORMATION ONLY

Codes used to identify States party to the PCT on the front pages of pamphlets publishing international applications under the PCT.

AT	Austria	FR	France	MR	Mauritania
AU	Australia	GA	Gabon	MW	Malawi
88	Barbados	CB	United Kingdom	NL	Netherlands
38	Belgiam	GN	Guinea	NO	Norway
BF	Burkina Faso	GR	Greece	NZ	New Zealand
BG	Bulgaria	ни	Hungary .	PL	Poland
B.J	Bunin	31	Ireland	PT	Portugal
BR	Brazil	1T	Italy	RO	Romania
CA	Canada	JP	Japan*	RU	Russian Federation
CF	Central African Republic	KP	Democratic People's Republic	SU	Sudan
CG	Congo		of Korea	SE	Sweden
CH	Switzerland	KR	Republic of Korea	SK	Slovak Republic
CI	Côte d'Ivoire	K2	Kazakhstan	SN	Senegal
CM	Canterous	LJ	Liechtenstein	SU	Soviet Union
cs	Czechoslovakia -	LK	Sri Lanka	TD	Chad
cz	Czech Republic	1.U	Luxembourg	TG	Togo
DΕ	Germany	MC	Monaco	UA	Ukraine
DK	Denmark	MG	Madagascar	US	United States of America
ES	Spain .	M1.	Mali	VN	Viet Nam
FI	Finland	MN	Mongolia		

MEAT SLICING APPARATUS

The Lin meat slicer has been designed to cut raw meat into a multiple number of thin slices simultaneously (the number of slices could be governed by the number of blades used).

An illustration of its assembly is shown in Fig. 1. Further detail of its component parts is shown in Fig. 2.

The Lin meat slicer operation as below.

In Figure 1, meat is placed in the stainless steel hopper (1) and then gravity fed onto a rack of blades (2). The crank shaft (4) and the connecting rod (6) driven by the motor (5) causes the rack and blades (2) to follow a reciprocating motion of 10mm per crank shaft revolution. The teeth in the hopper (1) base interlock with blades to prevent lateral motion of the meat during this process. The slices of meat then fall into the tray (3).

Further features are:

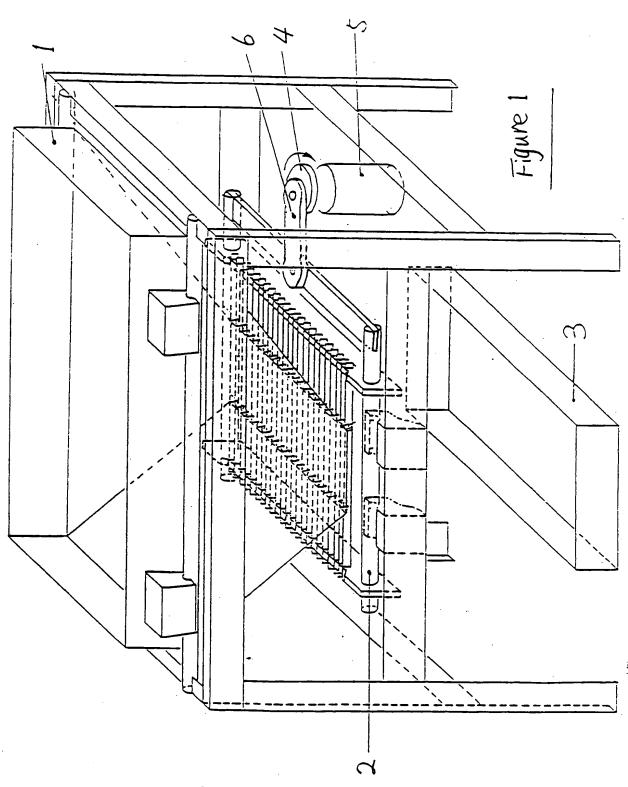
- i. Different thicknesses of slice may be obtained by matching a wider spacing blades.
- ii. The tray (3) may be hung up one side so that the slices of meat will slide into other larger containers.

SUBSTITUTE SHEET

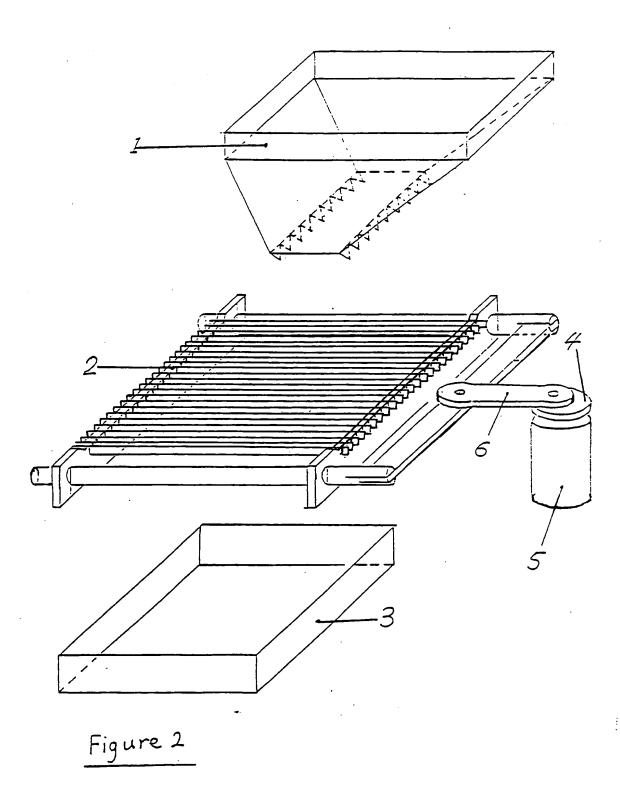
2

The claims defining the invention are as follows:-

- 1. While there are many types of meat slicing devices currently available, the Lin meat slicer is unique because it has a rack of blades with a number of blades.
- 2. While there are many types of meat slicing devices currently available, the Lin meat slicer is unique because it has the capacity to slice the meat into a multiple number of thin filleted pieces completely in one.
- 3. The Lin meat slicer is primarily designed for restaurant and sandwich bar trade where if compact dimensions would fit into very small kitchens or work areas.
- 4. This invention device include any different size and shape of the Lin meat slicer as claims 1. and 2.



SUBSTITUTE SHEET



SUBSTITUTE SHEET

A.	Alional Search Report			International application No PCT/AU93/0011
Int. Cl.5	CLASSIFICATION OF SUBJECT MATTER B26D 1/11, 1/06			
According	g to International Patent Classification (IPC) or to both r	national classic		
В.	FIELDS SEARCHED		readon and IPC	
Minimum IPC B26	documentation searched (classification system followed 5D 1/11, 1/06	by classificat	ion symbols)	
Documents AU : IPC	ation searched other than minimum documentation to the as above	e extent that s	uch documents are include	d in the fields searched
Electronic	data base consulted during the in-			
	data base consulted during the international search (nam	of data base	, and where practicable, so	earch terms used)
c.	DOCUMENTS CONSIDERED TO BE RELEVAN	T		·
Category	Citation of document, with indication, where app		he relevant necessari	T-:
Y	AU,B, 14262/88 (608310) (FENDOKY) 20 Oc Figure 1			Relevant to Claim No.
Y	US,A, 3245447 (JONES) 12 April 1966 (12.04 Figures 1-6	J.66)		
Y	US,A, 3089526 (LYKKEBERG) 14 May 1963 Entire document	(14.05.63)		
Y	US,A, 3028894 (LYKKEBERG) 10 April 1962 Entire document	(19.04.62)	•	
X Further in the	er documents are listed continuation of Box C.	x	See patent family annex	
Specia	il categories of cited documents:	" T"	-	
earlier interna	nent defining the general state of the art which is insidered to be of particular relevance document but published on or after the stional filing date ent which may throw doubts on priority claim(s) the stight to establish the sub-li-	пХи	later document publisher filing date or priority da with the application but principle or theory under document of particular rinvention cannot be constituted.	cited to understand the rlying the invention elevance; the claimed
anothe docum exhibit docum	or which is cited to establish the publication date of another citation or other special reason (as specified) document referring to an oral disclosure, use, exhibition or other means document published prior to the interpretional filter days			elevance; the claimed
		"&"	with one or more other a combination being obvious the art document member of the	us to a person skilled in

the art document member of the same patent family

Date of mailing of the international search report

19 JULY 1993

Telephone No. (06) 2832130

Authorized officer

D.G. FRY

AUSTRALIAN INDUSTRIAL PROPERTY ORGANISATION PO BOX 200 WODEN ACT 2606 AUSTRALIA

Date of the actual completion of the international search

12 July 1993 (12.07.93)

Facsimile No. 06 2853929

Name and mailing address of the ISA/AU

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT Category* Citation of document, with indication, where appropriate of the relevant passages Relevant to Claim N						
		Relevant to Claim No.				
Y	FR,A, 753179 (STEFFEN et al) 9 October 1933 (09.10.33) Entire document					
Y	DE,A, 553876 (PINCUS) 16 June 1932 (16.06.32) Entire document					
	GB,A, 1350651 (N.V. MAATSCHAPPII VOOR INDUSTRIELE RESEARCH					
A	ENONTWIKKELING) 18 April 1974 (18.04.74) Entire document					
	AU,B, 68045/90 (625187) (APV BAKER PTY LTD) 3 October 1991 (03.10.91)					
A	Entire document					
	AU, A, 43744/64 (ALLIED CHEMICAL CORPORATION) 28 October 1965 (28.10.65)					
A	Entire document					
	AU,B, 1648/39 (110188) (ROSE BROTHERS) 4 April 1940 (04.04.40)	·				
A	Entire document					
		·				
	. •					
	,					
	•	-				

Box I	Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)
This in	nternational search report has not established in respect of certain claims under Article 17(2)(a) for the following reasons:
1.	Claims Nos.: because they relate to subject matter not required to be searched by this Authority, namely:
2.	Claim Nos.: 1-4
	because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically: It is impossible to apply out a prescrible complying as to the score of the alcimed invention. This appear is therefore
	It is impossible to arrive at a reasonable conclusion as to the scope of the claimed invention. This report is therefore based on the operational statement at Page 1 line 8 - Page 2 line 2 with reference to figures 1-2.
3.	Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II	Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This In	nternational Searching Authority found multiple inventions in this international application, as follows:
1.	As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims
2.	As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3.	As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4.	No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims;
	it is covered by claims Nos.:
Remai	irk on Protest
	The additional search fees were accompanied by the applicant's protest.
	No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family memb.

International application No. *
PCT/AU93/00118

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

	Patent Document Cited in Search Report	Patent Family Member					
ΑÜ	14262/88	EP WO	352278 8807818	GB.	2228667	US	4913017
AU	68045/90	. GB	2242117				
GB	1350651	СН	522780	DE	2116941	NL	7005284
							END OF ANNEX